

# Geodisy: Geospatial Discovery for Canadian Research Data

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University of British Columbia Library

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## **GEODISY: GEOSPATIAL DISCOVERY**

**WE AIM FOR CANADIAN RESEARCH DATA TO BE SEARCHED,  
FILTERED, AND BROWSED USING GEOGRAPHIC LOCATIONS AS WELL  
AS WITH TEXT.**



- Search results are driven by an interactive map
- Location is the primary search facet, linking resources from a similar area
- Relies less on textual searching, which is not ideal for spatial data

# GEODISY: GEOSPATIAL DISCOVERY



**Geospatial discovery is possible using location descriptions and metadata**

- Geospatial data = machine readable using a GIS
- Non-geospatial data = discovery comes from descriptive metadata\*
- Bounding boxes = rectangles representing the spatial extent of a data set

\*to generate bounding boxes from non-geospatial data we are using [geonames.org](http://geonames.org)

# GEODISY: GEOSPATIAL DISCOVERY

## Geodisy (re-)uses 3 open-source software components



- **Dataverse:** Research data repository
- +
- **GeoServer:** Server for publishing and distributing geospatial data
- +
- **GeoBlacklight:** Geospatial discovery layer

\*Geodisy source code and documentation is available in github - <https://github.com/ubc-library/geodisy>.

# GEODISY: GEOSPATIAL DISCOVERY

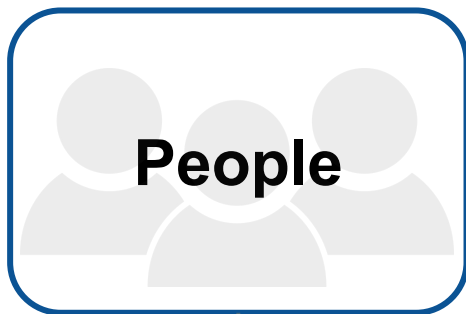
## Project description (in steps):

1. Software will query datasets from the Scholars Portal Dataverses (and later from UAlberta, Dal, UNB, UManitoba, etc.) to determine which have geospatial information
2. Software will harvest metadata from relevant non-geospatial datasets
3. Software will harvest metadata and data files from geospatial datasets
4. Software will transform metadata to **ISO 19115** and add bounding boxes if needed
5. Software will deposit geospatial data and “geo”metadata into **Geoserver**
6. Metadata will be harvested by **GeoBlacklight** for discovery
7. GeoBlacklight will be customized to the needs of **FRDR** (Federated Research Data Repository), providing a unified map-based search interface for research data in Canada



# GEODISY: GEOSPATIAL DISCOVERY

## Who will use it?



Researchers,  
students, journalists,  
etc



Canada's Federated  
Research Data  
Repository (FRDR)

Any entity with the  
available  
infrastructure

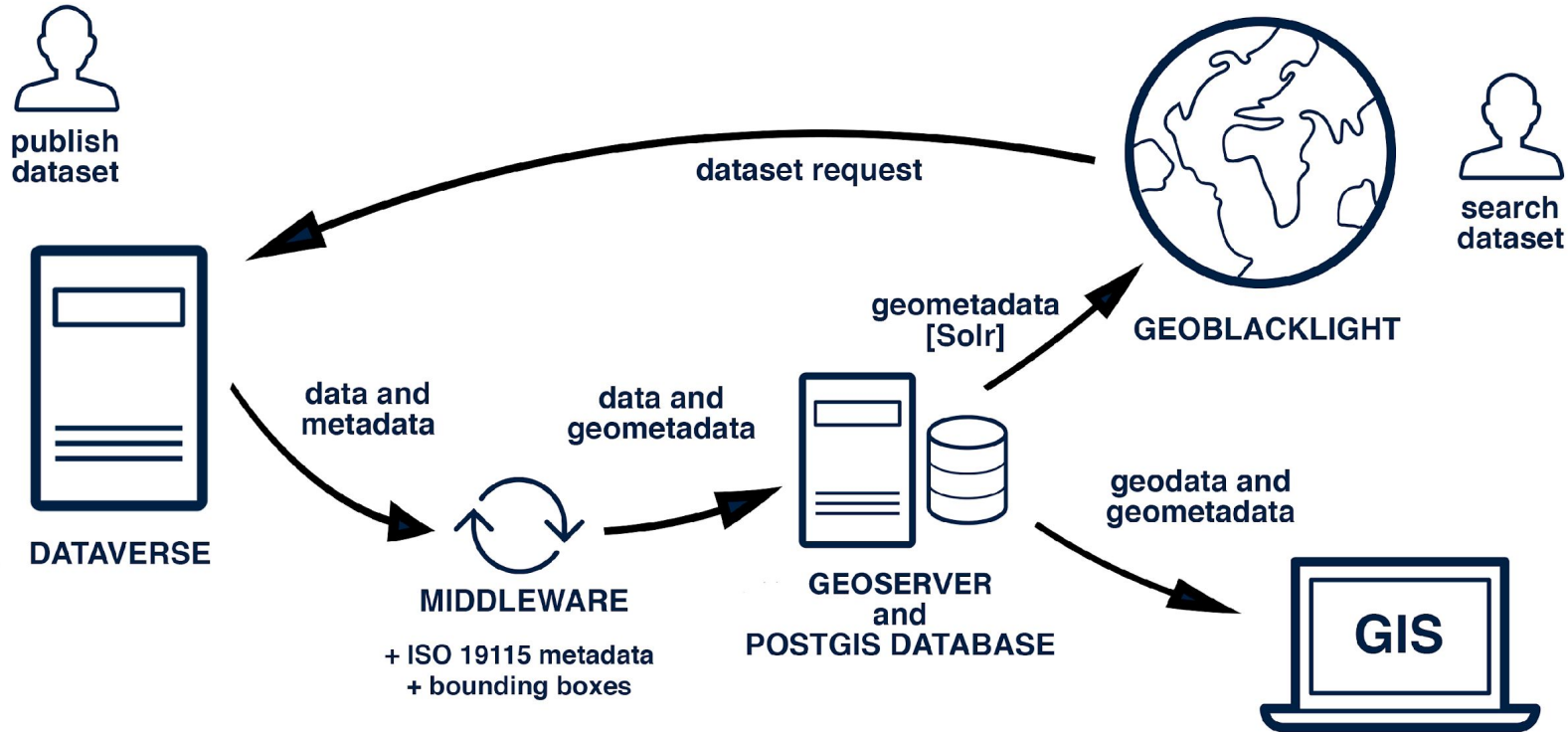
# GEODISY: GEOSPATIAL DISCOVERY

## Why use it?



- Data can be difficult to find! When searching for data about a particular place, keywords can be hit and miss. Geodisy will show you where, in addition to what.
- Geodisy will benefit any research area that has use for location-based discovery, including climate change, community development, public health, conservation, and many more.

# GEODISY: GEOSPATIAL DISCOVERY





# GEODISY: GEOSPATIAL DISCOVERY

## Reminder:

- For the initial step, for March 2020, Geodisy is funded to work with Canadian Dataverses only...



Scholars Portal Dataverse For testing Dataverse, go to the demo site. // Pour tester Dataverse, allez sur notre site de démonstration.

Metrics 122,931 Downloads Contact Share

Ryerson University  
Ryerson University Dataverse

TRENT UNIVERSITY  
Trent University Dataverse

UBC  
University of British Columbia

UNIVERSITY OF GUELPH  
University of Guelph Dataverse

Search this dataverse... Find Advanced Search

1 to 10 of 1,913 Results

Dataverse de l'Université du Québec à Trois-Rivières (Université du Québec à Trois-Rivières)  
Apr 15, 2019

Metrics 184 Downloads Contact Share

Share, publish and get credit for your data. Find and cite research data from across all research fields.

Search this dataverse... Find Advanced Search

1 to 10 of 29 Results

2016 Census of Population: ATIA and DA Maps for Annapolis County Nova Scotia

## University of Manitoba

Metrics 2,574 Downloads

Search this dataverse... Find Advanced Search

1 to 10 of 57 Results

Dataverses (17)  
Datasets (40)

Dataverse

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UAL Dataverse (Digital Initiatives, University of Alberta Libraries) data.management@ualberta.ca

Metrics 27,671 Downloads Contact Share

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1 to 10 of 460 Results

Dataverses (80)  
Datasets (380)  
Files (3,965)

Replication data for: Species-specific size vulnerabilities in a competitive arena: Nutrient heterogeneity and soil fertility alter plant competitive size-asymmetries

DALHOUSIE 1818 UNIVERSITY 2018

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Dalhousie University Dataverse (Dalhousie University) Test out dataverse using our demo site!

Metrics 184 Downloads Contact Share

Share, publish and get credit for your data. Find and cite research data from across all research fields.

Search this dataverse... Find Advanced Search

1 to 10 of 29 Results

2016 Census of Population: ATIA and DA Maps for Annapolis County Nova Scotia

# GEODISY: GEOSPATIAL DISCOVERY (EXPECTED UI – example from NYU)

## Limit your search

- Institution >
- Author >
- Publisher >
- Subject >
- Place >
- Collection >
- Year >
- Access >
- Data type >
- Format >

You searched for: Bounding Box > -111.621094 11.350797 -37.265625 68.720441 ✖

[Start Over](#)

« Previous | 1 - 10 of 24,439 | Next »

Sort by relevance ▾

10 per page ▾

▼ 1. [1 Degree Graticule, Northeast United States, 2...](#) 🔗 📄 📍

2010. United States. National Oceanic and Atmospheric Administration, United States. Department of Commerce, United States. National Ocean Service, and Coastal Services Center (U.S.). This line shapefile displays graticules (grid lines of latitude parallels and longitude meridians) for the Northeastern United States at 1 degree i... Coastal Services Center (U.S.).

▶ 2. [10 Degree Graticule, Northeast United States, ...](#) 🔗 📄 📍

▶ 3. [100-Meter Resolution Color Shaded Relief of ...](#) 🌐 📄 📍

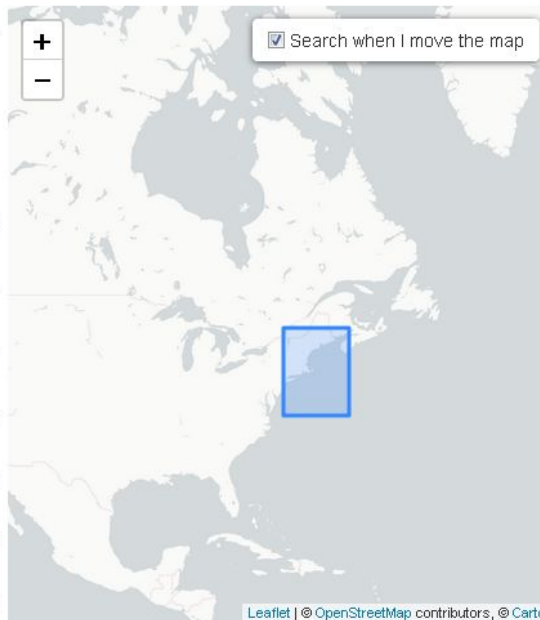
▶ 4. [100-Meter Resolution Color-Sliced Elevation o...](#) 🌐 📄 📍

▶ 5. [100-Meter Resolution Elevation of Puerto Rico...](#) 🌐 📄 📍

▶ 6. [100-Meter Resolution Grayscale Shaded Relie...](#) 🌐 📄 📍

▶ 7. [100-Meter Resolution Impervious Surface of P...](#) 🌐 📄 📍

▶ 8. [100-Meter Resolution Land Cover of Puerto Ri...](#) 🌐 📄 📍



# GEODISY: GEOSPATIAL DISCOVERY (EXPECTED UI – NYU)

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[Back to Search](#) [Start Over](#)

## 2010 Buildings

**Publisher:** [New York \(City\). Department of City Planning](#)

**Place(s):** [New York City, New York, United States](#)

**Subject(s):** [Buildings and Urban density](#)

**Format(s):** [Shapefile](#)

**Year(s):** 2010

**Held by:** [NYU](#)

**Preservation record:** <http://hdl.handle.net/2451/34043>



### Tools

 [Email](#)

 [Web services](#)

 [Open in Carto](#)

### Download(s)

[Shapefile](#)

### Other Formats

Derived Shapefile

[Download](#)

KMZ

[Download](#)

GeoJSON

[Download](#)



# GEODISY: GEOSPATIAL DISCOVERY

## CORE PROJECT TEAM (UBC)

- Eugene Barsky – Principal Investigator
- Paul Dante – Software Developer
- Edith Domingue – ARC Client Services Manager
- Mark Goodwin – Geospatial Metadata Coordinator
- Tang Lee – Project Manager
- Paul Lesack – Co-Principal Investigator
- Evan Thornberry – Co-Principal Investigator

## PROJECT PARTNERS

- Jason Brodeur – McMaster University
- Marcel Fortin – University of Toronto
- Alex Garnett – SFU
- Amber Leahey – Scholars Portal
- Jason Hlady – University of Saskatchewan
- Venkat Mahadevan – UBC ARC
- Todd Trann – University of Saskatchewan
- Lee Wilson – Portage Network



**Launching in spring 2020**